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EXAMINER

BARR, MICHAEL E

ART UNIT

PAPER NUMBER

1762

DATE MAILED: 08/29/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/927,062

Applicant(s)

SLIMAK ET AL.

Examiner

Michael Barr

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 1-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Election/Restrictions***

1. Applicant's election with traverse of Group III, Claims 22-24 in Paper No. 9 is acknowledged. The traversal is on the ground(s) that the three groups are not unrelated and should be examined together. This is not found persuasive because, as established in the previous office action, the three groups of invention are distinct inventions. Group I forms a silicon oxide layer on a substrate, Group II forms a plywood, wafer, or chip board with a sodium silicate solution and wood particles, and Group III treats a material with a silicate solution. The invention of Group III does not require the limitations of Group I, which requires the formation of the silicon oxide layer, but does not require the treatment with the silicate, as required by Group III. The invention of Group III does not require the limitations of Group II, which requires the combination of a silicate solution and wood particles and then polymerization of the combination, but does not require the impregnation or treatment to render the silicate less soluble in water, as required by Group III. The invention of Group I does not require the limitations of Group II, which requires the combination of a silicate solution and wood particles and then polymerization of the combination. Group I does not even mention use of the silicate solution. The mere fact that the claimed treatments of Groups I, II, and III can be performed on similar materials is insufficient to establish that the inventions of Groups I, II, and III are not unrelated and patentably distinct.

The requirement is still deemed proper and is therefore made FINAL.

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2. Claims 1-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in Paper No. 9.

### *Claim Objections*

3. Claim 24 is objected to because of the following informalities: Line 2 of Claim 24 contains the phrase "an sodium silicate solution". This is improper grammar. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 cites the limitation of further heat treating "to tend to cause said soluble silicate to become less soluble in water". This limitation is vague and indefinite since it is not clear from the claim whether or not the heat treating actually causes that silicate to become less soluble in water. What is actually required by the claim?

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***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Lilla.

Lilla teaches impregnating wood with a sodium silicate solution, drying (dehydrating), and then applying heat energy to react the sodium silicate to make the silicate material insoluble to water (Col. 2, lines 24-40). Lilla teaches that the treatment process imparts fire, moisture, and dimensional change resistance and increased dimensional stability to the wood product, which would include increased hardness and durability, and resistance to chipping and peeling (Col. 3, line 50 to Col. 4, line 20).

***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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9. Claims 22-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 4-5 of U.S. Patent No. 6,040,057. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of U.S. Patent No. 6,040,057 anticipate the limitations of the above claims of the present application, except that they do not teach that the energy application to render the silicate insoluble is by heating and that the silicate is polymerized. However, heating is the obvious for of energy to render the silicate insoluble, as is shown by the description by the applicant and U.S. Patent No. 6,040,057. Furthermore, it appears that the silicate must polymerize to form the insoluble silicate in U.S. Patent No. 6,040,057 (see Abstract), and thus would have been inherent in the claimed invention of U.S. Patent No. 6,040,057.

10. Claims 22-24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,146,766. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of U.S. Patent No. 6,146,766 anticipate the limitations of the above claims of the present application, except that they do not teach that the energy application to render the silicate insoluble is by heating and that the silicate is polymerized. However, heating is the obvious for of energy to render the silicate insoluble, as is shown by the description by the applicant and U.S. Patent No. 6,146,766. Furthermore, it appears that the silicate must polymerize to form the insoluble silicate in U.S. Patent No. 6,146,766 (see Abstract), and thus would have been inherent in the claimed invention of U.S. Patent No. 6,146,766. The claims of U.S. Patent No. 6,146,766 further do not teach the dehydration of the silicate solution prior to the heat treating. However, this merely reads on a drying process and the same would have been obvious to one skilled the

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art practicing U.S. Patent No. 6,146,766 as the mere act of heat treating would have caused at least some measure of drying.

*Conclusion*

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Phelps, Jr. et al. teaches coating a substrate with a sodium silicate solution, drying (dehydrating), and then applying heat energy to react the sodium silicate to make the silicate material insoluble to water.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Barr whose telephone number is 703-305-7919. The examiner can normally be reached on Monday-Thursday 6:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 703-308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 or 703-305-5408 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Michael Barr  
Primary Examiner  
Art Unit 1762

MB  
August 28, 2002